

REMARKS

Claims 1, 2, 5-9, 12-17, 19, and 20 are all the claims pending in the application. By this amendment, dependent claims 3, 4, 10, 11, and 18 have been canceled.

Claims 1, 8, and 15 are independent claims.

Improper Finality of the Office Action

As an initial matter, the previous Office Action was made final even though the Examiner relies on *newly cited* Gaugel et al. (US 4,794,297). Specifically, the Examiner asserts that the Finality was based on amendments to the claims made in the Amendment filed April 12, 2007.

However, the amendments to the claims made in the Amendment filed April 12, 2007 *did not change the scope of subject matter claimed*. For example, claim 1 was merely amended to add the word *ceramic* with respect to the light emitting tube in several places at the request of the previous Examiner. However, this amendment did not change the scope of subject matter claimed because the claim *already recited* that the light emitting tube is *ceramic*, straight, and cylindrical. Therefore, Applicant respectfully requests the Examiner to withdraw the finality of the Office Action dated August 22, 2007.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tokuchi et al. (JP 2001-076677) in view of Tsuda et al. (US 2002/0130601) and *newly cited* Gaugel et al. (US 4,794,297).

Claim 1

Applicant has amended independent claim 1 so that it includes the recitations of dependent claim 4 and also recites that the width of the first light blocking portion is no more than a distance between a distal end of the rear one of the sealed end portions and a tip end of an adjacent one of said electrodes. This amendment is supported at least by the exemplary embodiment shown in FIG. 2, in which the width *d* of the light blocking portion 50B is no more than a distance between the distal end 15b1 of the electrode 15b and the laser welded portion 14c at the end of the rear electrode 15b.

Applicant respectfully requests the Examiner to withdraw the rejection of independent claim 1 at least because there is no combination of Tokuichi and Tsuda that would reasonably meet all of the claim's recitations. For example, there is no combination of Tokuichi and Tsuda that would reasonably meet the claimed discharge bulb in which (1) said first strip-shaped light blocking portion has a width, in an axial direction of the light emitting tube, at least corresponding to a width, in the axial direction, of the rear one of the sealed end portions of said light emitting tube, and (2) said width of the first light blocking portion is no more than a distance between a distal end of the rear one of the sealed end portions and a tip end of an adjacent one of said electrodes.

The Examiner points to the *general disclosure* in Gaugel regarding the use of a shielding structure to control light distribution, and asserts that it would have been obvious to use the configurations of Gaugel with those of Tokuichi and Tsuda. However, one of ordinary skill, even after considering Gaugel, would not have provided the recited *strip-shaped first light blocking portion* disposed at a first portion of said ceramic light emitting tube that corresponds to *at least a rear one of the sealed end portions* of said ceramic light emitting tube, let alone a

strip-shaped light blocking portion having a width, in an axial direction of the light emitting tube, (1) at least corresponding to a width, in the axial direction, of the rear one of the sealed end portions of said light emitting tube, and (2) being no more than a distance between a distal end of the rear one of the sealed end portions and a tip end of an adjacent one of said electrodes.

As discussed in previous amendments, the discharge bulb of claim 1 addresses a problem in prior art discharge bulbs in which a light blocking seal, like that of Tokuchi, is provided radially inside a *ceramic* light emitting tube. Specifically, if a light blocking seal is provided *radially inside* of the ceramic light emitting tube, a small amount of light will still be guided to the longitudinal ends of the ceramic emitting tube due to the light guiding function of the ceramic tube.¹ This small amount of light will form an extraneous dull glowing light, for example Pb2 shown in FIG. 18.² In contrast, if a strip of light blocking portion is provided *as a portion of* the ceramic light emitting tube or provided *radially outside of* the ceramic light emitting tube, then this dull glowing light can be prevented. Accordingly, it is an important inventive feature that a *strip-shaped light blocking portion* is disposed at a first portion of said ceramic light emitting tube that *corresponds to at least a rear one of the sealed end portions of* said ceramic light emitting tube.

Turning to the first embodiment of Gangel, Gangel at FIGS. 1 and 2 discloses a lamp 1 including a discharge bulb 2 that terminates in a pinch or press seal 3. The pinch or press seal 3 connects the electrodes 4 within the bulb 2 to electrodes outside of the bulb.³ Gangel also

¹ See Original Specification at the first full paragraph of page 5.

² See Original Specification at Fig. 18 & second full paragraph of page 3.

³ See Gangel at FIGS. 1 & 2.

discloses a radiation absorbing coating 8 provided at the end of the lamp 1 where the bulb 2 is provided. However, importantly the coating 8 of Gangel is not disposed at a position that *corresponds to the* pinch or press seal 3. Instead, as shown in FIGS. 1 and 2, the coating is provided further to the end of the lamp than the pinch or press seal. As such, there can be no disclosure regarding the width of a strip-shaped light blocking portion.

Furthermore, the second embodiment of Gangel shown in FIG. 3 discloses a double ended lamp 11 in which a coating 18 is provided on the bottom portion of the bulb. However, this coating 18 coats the *entire bottom portion* of the lamp 11 and is, thus, not the recited strip-shaped light blocking portion. Accordingly, the coating 18 of Gangel would block too much light and would not provide a proper light distribution.

Thus, for the reasons discussed above, there is no reason of record to modify the coating 8 or 18 of Gangel so that it is provided in the claimed manner. Instead, the Examiner has provided the unsupported statement that the use of Gangel would provide a “more versatile, easily applied light blocking portion.” As recently reiterated by the Supreme Court in *KSR v. Teleflex*,⁴ there must be some reason to combine the prior art in the claimed manner to support a finding of obviousness.

Referring to the PTO’s new KSR Guidelines,⁵ since none of the cited reference, including Gangel, discloses or suggests the problems to be solved in the present invention, one of ordinary

⁴ 82 USPQ2d 1385, 1396, 127 S.Ct. 1727, 167 L.Ed.2d 705 (U.S. 2007), quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329 (CA Fed. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”).

⁵ See <http://www.uspto.gov/web/offices/com/sol/notices/72fr57526.pdf>.

skilled in the art would have no way to yield predictable result of this invention. In this regard, it would be improper to reject claim 1 based on the PTO's new rationale (D) to support rejections under 35 USC 103 (i.e., applying a known technique to a known device).

Moreover, since no combination of the cited references would provide the function of the present claim 1, there is no evidence that "each element merely would have performed the same function as it did separately," which is new rationale (A) to support rejections under 35 USC 103 (i.e., combining prior art elements).

Thus, Applicant respectfully requests the Examiner to withdraw the rejection of claim 1 for at least the reasons discussed above.

Claim 8

Similar to independent claim 1, Applicant has amended independent claim 8 so that it includes the recitations of dependent claim 9 and also recites that the width of the first light blocking portion is no more than a distance between a distal end of the rear one of the sealed end portions and a tip end of an adjacent one of said electrodes. Applicant respectfully requests the Examiner to withdraw the rejection of independent claim 9 at least because there is no combination of Tokuichi and Tsuda that would reasonably meet all of the claim's recitations, as is discussed in detail with respect to claim 1.

Claim 15

With respect to independent claim 15, Applicant respectfully requests the Examiner to withdraw the rejection at least because there is no combination of Tokuichi and Tsuda that would reasonably meet all of the claim's recitations. For example, the coatings 8, 18 of Gangel cannot reasonably be considered equivalent to the recited "*means for* positioning a hot zone of a

luminous distribution at a cutoff line of said luminous distribution, and substantially reducing a glare light output.”

MPEP 2183 provides a discussion regarding a proper rejection of a means-plus-function limitations, such as this. The Examiner’s rejection is deficient at least because the coatings 8, 18 of Gaugel do not provide the recited function of *substantially reducing a glare light output*.

Moreover, assuming *arguendo* that the coatings 8, 18 would somehow reduce the glare output, these coatings do not provide this function in substantially *the same way to achieve substantially the same result* as the corresponding structures in the specification.⁶ The corresponding structures include the *exemplary* embodiments shown in FIGS. 2, 10, 12, and 13, in which the strip-shaped light blocking portion is provided *radially outside* of the ceramic light emitting tube, and the *exemplary* embodiment shown in FIG. 11, in which the strip-shaped light blocking portion is provided as *a portion of* the light blocking tube. In each of these embodiments, the *strip-shaped light blocking portion* is disposed at a first portion of said ceramic light emitting tube that *corresponds to at least a rear one of the sealed end portions of* said ceramic light emitting tube. As discussed in detail above, by positioning the recited strips in the claimed manner, a glare or extraneous dull glow of the light output is substantially reduced.

In contrast, the coatings 8, 18 of Gaugel are provided on larger areas of the lamp 1 and therefore block too much light and would not provide the proper light distribution.

⁶ See MPEP 2183 at p. 2100-235.

Claim 16

Dependent claim 16 has been amended so that it includes limitations similar to those of claims 1 and 8, but depends from the means-plus-function claim 15. Applicant respectfully requests the Examiner to withdraw the respectfully traverses the rejection of claim 16 because of its dependency from claim 15 and for the reasons discussed in detail above with respect to claim 1.

Claims 2, 9, 17

With respect to claims 2, 9, and 17, Applicant respectfully requests the Examiner to withdraw the rejection of these claims at least because of their dependency from claim 1, claim 8, or claim 16 and because the applied references do not disclose any feature that could reasonably be considered *a second light blocking portion* disposed at a second portion of said ceramic light emitting tube that corresponds to a front one of the sealed end portions of said light emitting tube. That is, Gaugel merely disclose a single coating 8, 18, and there is not reason to provide multiple light blocking portions.

Claims 3-7, 11-14, and 18-20

With respect to claims 3-7, 11-14, and 18-20, Applicant respectfully requests the Examiner to withdraw the rejection of these claims at least because of their dependency from claim 1, claim 8, or claim 16.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

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Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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